

REMARKS

Claims 1-7 are all the claims pending in the application. Claims 1-7 presently stand rejected.

Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jagersberger (5,477,007) in view of Takaoka et al. (JP 2000-30953).

Analysis

Applicants amend claim 1 to describe more clearly the difference between a single and a multiple twisted conductor.

Additionally, Applicants provide submit the following comments in conjunction with the illustrations below in an attempt to further explain the distinction between a single twisted conductor and a multiple twisted conductor.

- 1, 2 = twisted conductor
 2 = stacks
 3 = first partial conductors
 4 = casing

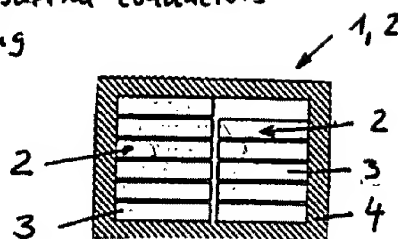


Fig. A

Prior art US 5477007

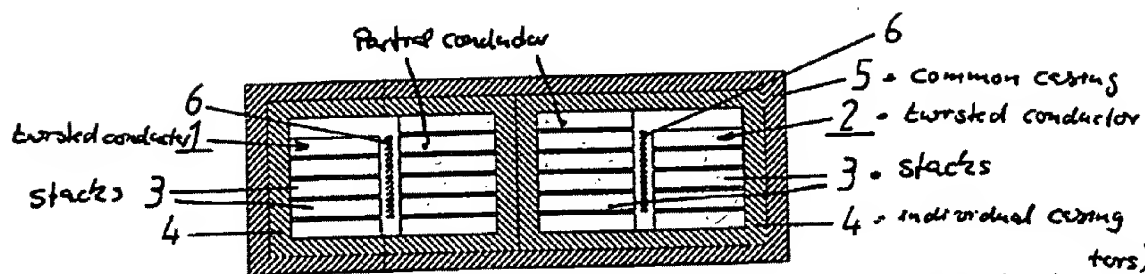


Fig. B

Prior art (two twisted conductors)

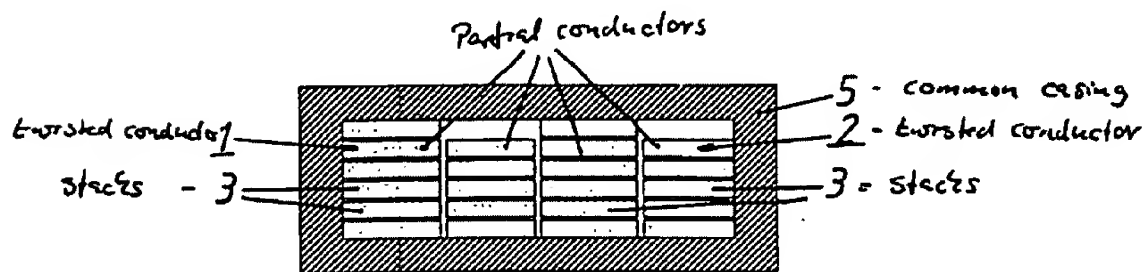


Fig. C

Figure A shows a single twisted conductor, consisting of two stacks 2 of partial flat enamel insulated conductors 3 of an uneven number. The conductors have been twisted or stranded with the so called Roebel characteristic. The partial conductors on both flat sides of the cross-section extend obliquely in the opposite sense and, on the small sides of the cross-section cross over, from one side to the other, via a sharp bend. Each partial conductor changes its position in the twisted conductor along the length of the twisted conductor. Thus, the twisted conductors are called continuously transposed conductors.

The single twisted conductor of Figure A has a common casing 4 for the two stacks. Such a single twisted conductor is disclosed in US 5,477,007 (Jagersberger).

Figure B discloses a multiple twisted conductor, comprising two single twisted conductors as shown in Figure A. The two single twisted conductors, each of which has a casing 4 of insulating material, have a common casing 5.

Applicants' invention is directed to the structure shown in Figure C. The two single twisted conductors have no individual casing 4 but they are surrounded by a common casing 5.

As mentioned earlier, Jagersberger does not disclose a multiple twisted conductor but rather a single twisted conductor. The illustrations show an upper and lower stack a, b having a plurality of insulated flat conductors. This is not a multiple twisted conductor as known in the art.

JP '953 discloses a molded coil 11. At the time of manufacturing the coil 11a, strand 3 carrying a coating 2 is wound in two stages. The strand 3 forms an interstage section 10. Spacers 13 of the same material as a molding resin 6 are installed to the interstage section 10 of the coil.

JP '953 also does not describe a twisted conductor, which comprises a multitude of flat conductors, but a coil which comprises only one strand 3, which is wound to a coil. Thus, even if one were to combine the cited references, one would not have arrived at the claimed invention. Specifically, one would not have provided a multiple twisted coil which comprises at least two individual twisted conductors each of which comprises stacks of an uneven number of individual enamel insulated partial conductors, with a joint sheath surrounding both of the individual twisted conductors without any insulating layer of their own.

In view of the foregoing, the combination of cited references does not teach or suggest the claimed multiple twisted conductor according to claims 1 and 4. Therefore, these claims are patentable.

The remaining rejections are directed to the dependent claims. These claims are patentable for at least the same reasons as claims 1 and 4, by virtue of their dependency therefrom.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/982,815

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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